

IN THE CLAIMS

1. (Currently Amended) A scanning device having a differential analog transmission pair, the scanning device comprising:

an image capture component board, including:

an image capture component for receiving data in the form of optic signals, and transforming the optic signals into analog electric signals; and

a differential output driver coupled to the image capture component for transforming the analog electric signals into differential mode and outputting a differential analog electric signal; and

a main board coupled to the image capture component board, including: a differential input receiver for receiving the differential analog electric signal, and restoring the differential analog electric signal back to the analog electric signals ~~signal~~.

2. (Currently Amended) The scanning device of claim 1, wherein the differential analog electric signal includes a non-phase reversal analog signal and a phase reversal signal.

3. (Currently Amended) The scanning device of claim 1, wherein the main board further includes:

an analog front coupled to the differential input receiver for transforming the analog electric signals ~~signal~~ into an analog front electric signal; and

an analog to digital ~~A/D~~ converter coupled to the analog front for converting the analog front electric signal into a digital signal and outputting the digital signal.

4. (Currently Amended) The scanning device of claim 1, wherein the main board ~~mainboard~~ further includes a clock signal generator for generating a plurality of clock signals to be provided to the image capture component for driving the image capture component ~~same~~.

5. (Original) The scanning device of claim 1, wherein the image capture component includes a charge coupled device.

6. (Original) The scanning device of claim 1, wherein the image capture component includes a contact image sensor.

7. (Original) The scanning device of claim 1, wherein the image capture component includes a CMOS device.

8. (Currently Amended) A method for using a differential pair in a scanner, the method comprising the steps of:

receiving an optic signal representing scanned data, and transforming the optic signal same into analog electric signals;

transforming the analog electric signals into differential analog electric signals; and

receiving the differential analog electric signals, and restoring the differential analog electric signals same back into analog electric signals.

9. (Currently Amended) The method of claim 8 further comprising:
transforming the analog electric signals signal into an analog front electric signal; and
converting the analog front electric signal into a digital signal using an analog to digital converter.

10. (Currently Amended) The method of claim 8, wherein the differential analog electric signals include signal ~~includes~~ a non-phase reversal analog signal and a phase reversal signal.

11. (Original) The method of claim 10, wherein the non-phase reversal analog signal and the phase reversal signal have phase reversing relationships with each other.

12. (Currently Amended) The method of claim 10, wherein the non-phase reversal analog signal is in-phase with the phase reversal signal, and the non-phase reversal analog signal has an electric potential equal to an the analog electric signal's electric potential of the analog electric signals plus a bias electric potential.

13. (Currently Amended) The method of claim 10, wherein the phase reversal analog signal is in-phase with the phase reversal signal, and the non-phase reversal analog signal has an electric potential equal to an the analog electric signal's electric potential of the analog electric signals minus a bias electric potential.

14. (New) An apparatus comprising:
means for receiving an optic signal representing scanned data, and transforming the optic signal into analog electric signals;
means for transforming the analog electric signals into differential analog electric signals;
and
means for receiving the differential analog electric signals, and restoring the differential analog electric signals back into analog electric signals.

15. (New) The apparatus of claim 14 further comprising:
means for transforming the analog electric signals into an analog front electric signal; and
means for converting the analog front electric signal into a digital signal using an analog to digital converter.

16. (New) The apparatus of claim 14, wherein the differential analog electric signals include a non-phase reversal analog signal and a phase reversal signal.

17. (New) The apparatus of claim 16, wherein the non-phase reversal analog signal and the phase reversal signal have phase reversing relationships with each other.

18. (New) The apparatus of claim 16, wherein the non-phase reversal analog signal is in-phase with the phase reversal signal, and the non-phase reversal analog signal has an electric potential equal to an electric potential of the analog electric signals plus a bias electric potential.

19. (New) The apparatus of claim 16, wherein the phase reversal analog signal is in-phase with the phase reversal signal, and the non-phase reversal analog signal has an electric

potential equal to an electric potential of the analog electric signals minus a bias electric potential.